

South African Medical Journal

Suid-Afrikaanse Tydskrif vir Geneeskunde

Vol. 24, No. 41

Cape Town, 14 October 1950

Weekly 2s

TEN-YEAR SURVEY OF BILIARY SURGERY

AT THE JOHANNESBURG GENERAL HOSPITAL

JOSEPH LANNON, F.R.C.S. (ENG.), F.I.C.S. (HON.)

and

J. KATZ, M.B. CH.B. (RAND.)

Johannesburg

We thought it would be both interesting and diverting to survey the results of gall bladder surgery as practised at the Johannesburg General Hospital. The following article presents a 10-year survey from 1940 to 1949 inclusive. The cases were operated upon by many different surgeons, both senior and junior.

Apart from possibly one or two other limited surveys at the General Hospital, this article is the first of its nature, and we feel sure that the lack of such is essentially due to limited surgical notes. This deficiency has now been rectified at the Johannesburg General Hospital.

During 1940-1949, 733 cases were operated upon. We have drawn no distinction, especially in mortality rates, between cases of acute and chronic cholecystitis, or those cases associated with jaundice. The cases have been divided into two 5-year periods. From the figures we were able to deduce some interesting facts:—

1. MATERIAL

TABLE I

Year	Operations	Common Duct Explored	Deaths	Returned for Bile Duct Repair
1940	85	12	7	0
1941	97	10	7	0
1942	57	6	3	0
1943	62	14	5	1
1944	63	11	7	0
Totals	364	53	29	1

TABLE II

Year	Operations	Common Duct Explored	Deaths	Returned for Bile Duct Repair
1945	66	13	2	1
1946	66	14	5	0
1947	86	18	5	1
1948	80	15	3	1
1949	71	17	0	1
Totals	369	77	15	4
1st Five Years:	364	14.6%	8.0%	1%
2nd Five Years:	369	22.0%	4.1%	1%

2. MORTALITY RATES

It will be seen from the above statistics that the mortality rate has been halved in the second 5-year period. We are not quite certain about the reasons for this drop. There are, however, a number of pertinent facts which account for the decrease.

(a) *Improved Pre- and Post-Operative Treatment.* The introduction of vitamin K and availability of parenteral proteins. The 'build-up' of the patient before operation in the first 5-year period was very often most inadequate. (It must be appreciated that this period ran its course during the war years when supplies of essential drugs were seriously curtailed.)

(b) *Introduction of Antibiotics.* These drugs have definitely played a large part in the reduction of lung deaths and deaths due to acute cholecystitis.

(c) *Liver Function Tests.* The introduction at the Johannesburg General Hospital of liver function tests as a matter of routine in the pre-operative work-up during the second 5-year period. It was not an uncommon occurrence during the first period for the patient to be admitted the day before operation, having had no previous or deliberate investigation. At the present time, in some units, all cases submitted for biliary surgery are investigated as follows:—

1. Hippuric acid test.
2. Prothrombin index.
3. Thymol turbidity and flocculation, cephalin cholesterol.
4. Blood urea.
5. Blood count.
6. X-ray of chest for heart size, and electrocardiogram

(d) *Anti-Coagulants.* The use of these drugs in the treatment of phlebothrombosis; also a wider and keener appreciation of this dreaded complication.

We thought it would be useful to assess all deaths in both first and second periods in the light of the above observations, and to remove from the over-all mortality those deaths we consider preventable.

Our criteria of preventable deaths were those:—

(a) Associated with pulmonary emboli occurring five to seven days after operation, and where pre-existing phlebothrombosis should have been suspected.

(b) All cases of infection and pneumonia.

(c) Cases where two distinct operations were done,

e.g. a man, aged 74, had both a cholecystectomy and a left inguinal herniotomy performed.

(d) Cases of hepatic failure in the younger age-group. These may have been predicted had the liver function tests been done.

TABLE III

	Actual Mortality	Actual %	Preventable Deaths	Modified Mortality %
1940-1944 ...	29	8.0	15	4.0
1945-1949 ...	15	4.1	6	2.4

If these figures are acceptable, then it brings the Johannesburg General Hospital mortality rates to within striking distance of those of some overseas clinics, and emphasizes the fundamental dictum of Moynihan: 'the patient must be made safe for surgery'.

3. COMMON DUCT EXPLORATION

It is worthy of note that in the first period, the common duct was opened in 14.6% of cases, and in the second period in 22% of cases. The fact that the basic mortality (Table I) was not increased, suggests that the extra surgical manoeuvre involved in this procedure does not subject the adequately prepared patient to undue hazards. We would, therefore, agree with Lahey, that if there is any indication whatsoever to investigate the common duct—even in the absence of jaundice, either present or past—exploration should be undertaken. From our own personal experience, we are often surprised at the unexpected contents of the common bile-duct, and in any case, even if nothing is found, dilatation of the sphincter of Oddi is a definite gain. In these latter cases, where neither stones nor debris are found, drainage of the duct is not obligatory. It can be closed safely and ordinary routine hepatorenal space drainage instituted.

In a series of 1,860 cases (Lahey¹) the common duct was explored in 30% of cases and stones removed in 15%. 'In what percentage of cases of calculous cholecystitis are stones found in the common-duct? The high incidence of this pathology has been fully appreciated only during the last 20 years. Best points out that in the past, continued recurrent biliary distress following cholecystectomy, has too frequently been attributed to biliary dyskinesia, when, as a matter of fact, it was due to a stone in the common duct.'² Best,³ in his last 100 consecutive cholecystectomies, opened the duct in 33 cases and found stones present in 17 (17%). He states that in 'one out of every four gall stone operations, stones will be found in the common duct.'

We, unfortunately, due to lack of information, cannot give a comparable series.

4. BILIARY DUCT INJURY

A total of five cases out of 733 (0.7%) returned to Hospital for repair of a duct injury.

None of the above-mentioned cases resulted in the death of the patient, although we do not plead this as

an excuse for these errors. Colp,⁴ in an analysis of 130 post-mortem examinations performed in surgical diseases of the biliary tract, reported that about 6% of the deaths could be ascribed either to the immediate effects of operative injury or to a subsequent traumatic stricture of the ducts.

SUMMARY

1. A survey of 733 cases of cholecystectomy over the last 10 years at the Johannesburg General Hospital was undertaken.

2. The series was divided into two periods: (a) 1940-1944; (b) 1945-1949.

3. The mortality rates are discussed especially in relation to preventable deaths.

4. The mortality of opening the common bile duct is discussed, comparing the first and the second periods.

We would like to thank the Superintendent, Dr. K. Mills, of the Johannesburg General Hospital, for his courtesy in allowing us access to notes, and members of the Registrar's office for their assistance.

REFERENCES

1. Lahey (1935): *New Eng. Med. J.*, **213**, 1275.
2. Maingot, Rodney (1949): *Abdominal Operations*, 2nd ed.
3. Best (1944): *Surg. Gynec. Obstet.*, **78**, 425.
4. Colp (1945): *Surg. Gynec. Obstet.*, **80**, 190.

ABSTRACT

Report on 726 Patients Who Were Re-treated Following Penicillin Therapy for Early Syphilis. Evan W. Thomas and Simeon Landy (1950): *Amer. J. Syph. Gonorrh. Vener. Dis.*, **34**, 126.

This interesting report deals with cases treated with penicillin for dark-ground positive early syphilis at the Rapid Treatment Centre, Bellevue Hospital, New York, between December 1943 and October 1947. The numbers involved were 689 patients who relapsed or were re-infected and 37 patients who were re-treated for seroresistance. Of the former, 409 have been followed up for from 12 to 56 months after re-treatment. The statistics are based on these patients. They were re-treated with double the original amount of penicillin, frequently with nine million units over a period of 15 days; 81.4% of the 409 patients were seronegative when last examined; 18.6% had Kahn titres of 16 or less; 291 had spinal fluid examinations one or more years after the last re-treatment. All of them were negative. Observation on one patient, with an increased number of cells, was not completed.

The authors make the observation that patients with abnormal spinal fluids at the time of the original penicillin treatment for early syphilis are no more likely to relapse than those with normal spinal fluids. Every effort was made to obtain spinal fluid examinations at the end of two years after treatment.

Sixty-three per cent of the relapses of reinfections occurred within the first eight months, and 92% within the first two years after the original treatment. The authors believe that relapse seldom, if ever, occurs later than two years after treatment has stopped. Similarly, relapse after neuro-syphilis was not observed more than 15 months after treatment was completed.

There is always considerable difficulty in distinguishing re-infection from relapse. Primary lesions on a new site were regarded as re-infections. The authors are of the opinion that 50% of the relapses were due to re-infection rather than to relapse.

Control by quantitative tests is essential. A steadily rising titre indicates serological relapse.

It is recommended that this article be read in the original.

South African Medical Journal

Suid-Afrikaanse Tydskrif vir Geneeskunde

EDITORIAL

AN ENCYCLOPAEDIA OF MEDICAL
PRACTICE¹

The planning and the execution of an encyclopaedia is always a Herculean task. One of the few occasions on which this has been attempted in modern medicine was in 1936 when Sir Humphrey Rolleston edited the *British Encyclopaedia of Medical Practice* (intimately referred to by many of its readers as 'BEMP'). The achievement was great enough for many consider that Rolleston's encyclopaedia has become an enduring memorial to a great man.

In its first edition BEMP achieved a vast and complete coverage not only for the general practitioner but also for the physician, surgeon, obstetrician and gynaecologist and for many others in specialist fields of practice.

The decision to undertake the second edition of so comprehensive a publication undoubtedly presented new and great problems. That it was timely to do so, there could be no doubt. A World War of unprecedented magnitude (fought since the first edition was published) ushered in an Atomic Age which has had extensive repercussions in the field of medicine. The radio-active isotopes produced by the atomic pile have made possible a fundamental study of metabolism and have altered our approach to medical diagnosis, certain branches of endocrinology as well as disorders of the blood. The antibiotics have passed from mouldy curiosities to the standby of routine treatment in general practice. The organic chemist has produced such potent chemotherapies in the sulphonamides as to have changed the face of clinical bacteriology. Conditions such as malignant endocarditis and tuberculous menin-

VAN DIE REDAKSIE

'N ENSIKLOPEDIE VAN GENEESKUNDIGE
PRAKTYK¹

Om 'n ensiklopedie te beplan en te voltooi is altyd 'n Herculestaak. Een van die enkele geleenthede waar dit in die moderne geneeskunde aangedurf is, was in 1936 toe sir Humphrey Rolleston die *British Encyclopaedia of Medical Practice* (in die omgang by baie van sy lesers bekend as 'BEMP') geredigeer het. Die prestasie was so groot dat vele gemeen het dat Rolleston se ensiklopedie 'n blywende gedenkteken vir 'n groot man geword het.

In die eerste uitgawe het BEMP 'n ontsaglike gebied volledig gedek, nie net vir die geneesheer nie, maar ook vir die internis, snykundige, verloskundige en ginekoloog en baie ander gespesialiseerde gebiede van praktyk.

Die besluit om die tweede uitgawe van so 'n omvattende werk te onderneem het ongetwyfeld nuwe en groot probleme na vore laat tree. Dat die tyd aangebreek het om dit te doen val nie aan te twyfel nie. Die Wêreldoorlog met ongeëwenaarde omvang wat gevoer is sedert die eerste uitgawe gepubliseer is, het 'n atoomtydperk ingelui wat uitgebreide nawerkinge op die gebied van geneeskunde gehad het. Die radio-aktiewe isotope wat deur die atoomsplitser gelewer is, het 'n fundamentele studie van metabolisme moontlik gemaak en het ons benadering van geneeskundige diagnose, sekere vertakkinge van endokrinologie, asook bloedkwale, verander. Die kiemvernietigende middels het van skimmelmerkwaardighede tot die staatmaker van roetinebehandeling by algemene praktyk ontwikkel. Die organiese skeikundige het met die sulfonamide so 'n kragtige geneeskundige behandeling deur middel van skeikunde gelewer dat die voorkoms van kliniese bakteriologie verander is. Kwale soos kwaadaardige endokarditis en tuberkulose meningitis het hulle ver-

1. *The British Encyclopaedia of Medical Practice*. Second edition. In 12 volumes + Index. Volume 1: pp. 719 + xxxi + index. (66s. per volume.) South African Publishers: Butterworth & Company (Africa) Limited, 1, Lincoln's Court, Masonic Grove, Durban.

1. *The British Encyclopaedia of Medical Practice*. Tweede Uitgawe. In 12 dele + Indeks. Deel 1: 719 bls. + xxxi + indeks (66s. per deel). Suid-Afrikaanse uitgewers: Butterworth en Kie. (Afrika) Beperk, Lincoln's Court 1, Masonic Grove, Durban.

gitis have altered their dreadful prognoses, and the former has almost changed its name. The biochemist has produced steroid compounds which have revised our concepts of the cause as well as the treatment of so common, disabling and crippling a disease as rheumatoid arthritis. The isolation of the cobalt vitamin (B_{12}) has placed in the hands of the therapist one of the most potent weapons of all time.

Our social attitudes towards medical practice have also undergone profound changes, as reflected by the growing interest in geriatrics and the attempt to recapture the intimate doctor-patient relationship of the old family practitioner in the concepts and principles of what has come to be known as Social Medicine.

Indeed, both the physician and the surgeon have now entered a field which has been described 'as wide as pathology itself'; and this remarkable situation in which the profession finds itself has virtually been created in the 14 years since BEMP first appeared.

The publishers were, therefore, well advised to approach so eminent an authority as Lord Horder to undertake the general supervision of the second edition of this remarkable work. Lord Horder is assisted by six Consultant Editors² and six Associate Editors for Special Subjects.³

The first volume of BEMP's second edition has already appeared. It is a weighty tome and it covers a slightly smaller range of the alphabet than its predecessor. It extends from *Abdominal Emergencies* to *Anus Diseases*, whereas its predecessor covered *Abdominal Emergencies* to *Appendicitis*. The revision and the re-arrangement of the matter in this volume has been considerable and the elegance of the design is even greater than before.⁴

The appearance of this encyclopaedic work is undoubtedly a great occasion. Those who have had first-hand experience of its usefulness will undoubtedly welcome the opportunity to replace it by the new edition. Those many thousands of doctors who have qualified since BEMP first made its bow are fortunate that they have the opportunity to acquire a completely up-to-date encyclopaedia with which to develop sound medical knowledge and practice.

2. Prof. Ian Aird; Sir Hugh Devine; Sir Leonard Rogers; Sir Charles Symonds; Sir Lionel E. H. Whitby and Prof. James Young.

3. Prof. E. C. Dodds—Biochemistry; Dr. Noel Harris—Psychological Medicine; Dr. R. M. B. Mackenna—Dermatology; Mr. W. G. Scott-Brown—Ear, Nose and Throat; Mr. F. A. Williamson-Noble—Ophthalmology; Dr. R. A. Willis—Pathology.

4. The publishers propose to keep BEMP up to date by yearly cumulative supplements indexed in a simple and effective way so that at any time there will only be one supplement to refer to. All information contained in any previous volume will have been included together with an account of such new medical knowledge as has become available and accepted.

Volumes 2-4 will be available by the end of the year and Volumes 5-12 will be published at quarterly intervals thereafter. The complete index will appear shortly after Volume 12.

skriklike prognoses verander en eersgenoemde het byna 'n naamsverandering ondergaan. Die biochemis het sterolagtige verbindinge gelewer wat ons begrip van die oorsaak asook die behandeling verbeter het van so 'n algemene siekte soos misvormende gewrigsontsteking wat so dikwels ongeskiktheid en kreupelheid veroorsaak. Die isolering van die kobaltvitamien (B_{12}) het een van die kragtigste wapens van alle tye in die hande van die geneesheer geplaas.

Ons maatskaplike houding teenoor mediese praktyk het ook ingrypende veranderinge ondergaan, soos weer-spieël word in die toenemende belangstelling in geriatric en die poging om in die begrippe en beginsels van wat as Maatskaplike Geneeskunde bekend geword het, die intieme verhouding tussen dokter en pasiënt in ere te herstel.

Beide die internis en die snykundige het nou inderdaad 'n gebied betree wat beskryf is as 'so wyd soos die siekteleer self'; en hierdie merkwaardige omstandighede waarin die beroep hom bevind, is feitlik geskep in die 14 jaar sedert BEMP die eerste keer verskyn het.

Die uitgewers was dus verstandig genoeg om so 'n uitmuntende gesaghebbende soos lord Horder te nader om die algemene toesig oor die tweede uitgawe van hierdie merkwaardige werk te onderneem. Lord Horder word bygestaan deur ses Konsulerende Redakteurs² en ses Mede-redakteurs vir Spesiale Onderwerpe.³

Die eerste deel van BEMP se tweede uitgawe het reeds verskyn. Dit is 'n lywige boekdeel en dit dek 'n effens kleiner deel van die alfabet as sy voorganger. Dit strek van *Abdominal Emergencies* tot *Anus Diseases* waar sy voorganger *Abdominal Emergencies* tot *Appendicitis* gedek het. Daar was aanmerkbare hersiening en herrangskikking van die materiaal in hierdie boekdeel en die ontwerp is selfs deftiger as tevore.⁴

Die verskyning van hierdie ensiklopediese werk is ongetwyfeld 'n groot geleentheid. Diegene wat persoonlike ondervinding van die nuttigheid daarvan het, sal ongetwyfeld die geleentheid verwelkom om dit met die nuwe uitgawe te vervang. Die duisende geneesheer wat gekwalifiseer het sedert BEMP sy eerste verskyning gemaak het, is gelukkig om die geleentheid te hê om 'n volledige moderne ensiklopedie aan te skaf waarmee deeglike mediese kennis en praktyk opgebou kan word.

2. Prof. Ian Aird; sir Hugh Devine; sir Leonard Rogers; sir Charles Symonds; sir Lionel E. H. Whitby en prof. James Young.

3. Prof. E. C. Dodds—Biochemie; dr. Noel Harris—Sielkundige Geneeskunde; dr. R. M. B. Mackenna—Dermatologie; mnr. W. G. Scott-Brown—Oor, Neus en Keel; mnr. F. A. Williamson-Noble—Oogheelkunde; dr. R. A. Willis—Patologie.

4. Die uitgewers is voornemens om BEMP by te hou deur middel van jaarlikse kumulatiewe byvoegsels wat op 'n eenvoudige en doeltreffende manier geïndekseer is sodat daar altyd net een byvoegsel is om na te slaan. Alle inligting in 'n vorige deel vervat, sal ingesluit word met 'n verslag van die mediese kennis wat beskikbaar geword het en aanvaar is.

Dele 2-4 sal aan die end van die jaar beskikbaar wees en Dele 5-12 sal daarna elke kwartaal verskyn. Die volledige indeks sal kort na Deel 12 verskyn.

PRIMARY CARCINOMA OF THE LIVER IN EAST AFRICAN NATIVES

IS IT CAUSED BY AN INFECTIVE AGENT?

W. O. FISCHER*

Pretoria

This paper gives a brief summary of some research work which I started 20 years ago, and which I was unable to bring to a conclusion.

In my capacity as medical research officer to the Rand Mines Ltd., from August 1926 until September 1939 I carried out all the autopsies on native mine workers who died in the medical wards of the City Deep Central Native Hospital.† The relative frequency of primary carcinoma of the liver amongst young natives soon drew my attention. With one exception—a Zulu—all the cases of such tumours referred to in this paper occurred amongst natives from Portuguese East Africa. All but one were in the second or third decade of life. Before they commenced work on the mines these natives had thrice undergone a thorough medical examination and been declared healthy. Usually the disease would progress rapidly. In a short time a large tumour of the liver would develop which, in the beginning, only caused very little discomfort, so that the men could carry on their strenuous underground work. When they became unable to work and were admitted to hospital the patient's liver usually was already enormously enlarged. At autopsy I found the weight of the organ ranging from 2,100 to 7,100 grammes. The greatest part of the liver tissue was replaced by carcinomatous masses and riddled with nodules. Metastases occurred in the lungs, kidneys and pancreas.

In all cases a histological examination was performed in the S.A.I.M.R. (Drs. Sutherland-Strachan and Simson). They reported one of these cases as primary liver carcinoma of the bile duct type, all the others as primary liver-celled carcinomata. Examining smears of the various organs of one of such cases in 1929 I found in the cytoplasm of large cells of the anterior lobe of the hypophysis inclusion bodies resembling rickettsia. This induced me to examine smears of this gland in all such cases I came across later on. The smears were made from the cut surfaces of both lobes, fixed in absolute alcohol and stained for one hour with a solution of azur-eosin (0.5 c.c. of a 1% solution of eosin plus 5 c.c. of a 0.16% solution of azur II in 100 c.c. distilled water) or with Giemsa solution (1 drop in 1 c.c. distilled water). In all but one of my cases I found organisms of the same type as above in large epithelial cells of the anterior lobes of the hypophysis, sometimes in the posterior lobes too. Occasionally some parasites lay extracellularly in small groups. The cells harbouring the inclusion bodies were not very numerous. Sometimes I could detect them only in the third or

fourth film of the same gland. I never saw these organisms in liver or tumour cells or in the regional glands. In one case they were also present in smears of the kidney. Altogether I examined the hypophysis of 18 cases, with positive results in 17.

Transmitting experiments were made in all these cases; I could transmit the organisms into guinea-pigs and rabbits by subcutaneous and intraperitoneal injections of 0.5 to 1.5 c.c. of an emulsion of particles of the human hypophysis in normal saline solution. In one experiment, such an emulsion, to which glycerine had been added, was still infective after being kept for six days at room temperature in a dark place. Two guinea-pigs were successfully inoculated by grafting a piece of the hypophysis under their skin. For subinoculations I used emulsions either of the medulla of the adrenals of guinea-pigs or of the liver of rabbits. One guinea-pig contracted the infection after being fed with an emulsion of the adrenals of another infected guinea-pig.

In smears prepared from the medulla of the adrenals of all the artificially infected guinea-pigs, basophilic inclusions could be demonstrated in the cytoplasm and to a limited extent in the nuclei of the parenchymatous cells. These inclusions are usually formed by a collection of small round or oval bodies ranging from 1.5 to 3.2 μ in diameter with an average of 2.5 μ . The typical appearance is usually of 5 to 30 granules, lying in a more or less circumscribed area of the cytoplasm. In some cells, on the other hand, up to 60 granules are irregularly disseminated in the cytoplasm.

Extracellular forms resembling the intracytoplasmic forms very closely were also demonstrated. In a few cases these inclusion bodies could be detected in smears from the spleen and the kidneys, and very seldom in the liver of these guinea-pigs. Fig. 1 illustrates them in the adrenal of a guinea-pig.‡

Contrary to these findings in guinea-pigs the smears of the adrenals of rabbits were negative in most cases; but in these animals the organisms could readily be detected in the liver. They were present also in the spleen and the kidneys, in one case in the ovary, and twice in mesenteric lymphatic glands. Through lack of time the examinations of smears could not be carried out methodically so as to determine accurately the incidence of the organisms in the various organs of the experimental animals. In five of 10 experiments the organisms were passaged for two or more passages, including seven passages in guinea-pigs and four rabbit passages.

The incubation period is apparently short. Guinea-

* Formerly Medical Research Officer to the Rand Mines Ltd.

† Records of these autopsies were published in this *Journal* on 28 September 1928 and 11 June 1932.

‡ I am greatly indebted to Mr. Theo Meyer of Onderstepoort, who made the photographs with kind permission of the late Dr. J. Quin.

pigs killed two days, and rabbits killed four days after inoculation were found infected. Rabbits seem to tolerate the infection better than guinea-pigs. Four rabbits lived longer than one year; two of them survived 30 months. The duration of the malady in guinea-pigs varied from a minimum of two days to a maximum of 12 months. However, one guinea-pig which became infected after a piece of human hypophysis had been grafted under its skin, survived for two years.

All the animals showed very few clinical symptoms excepting some loss of condition. Usually a few days before death they refused food and became drowsy.

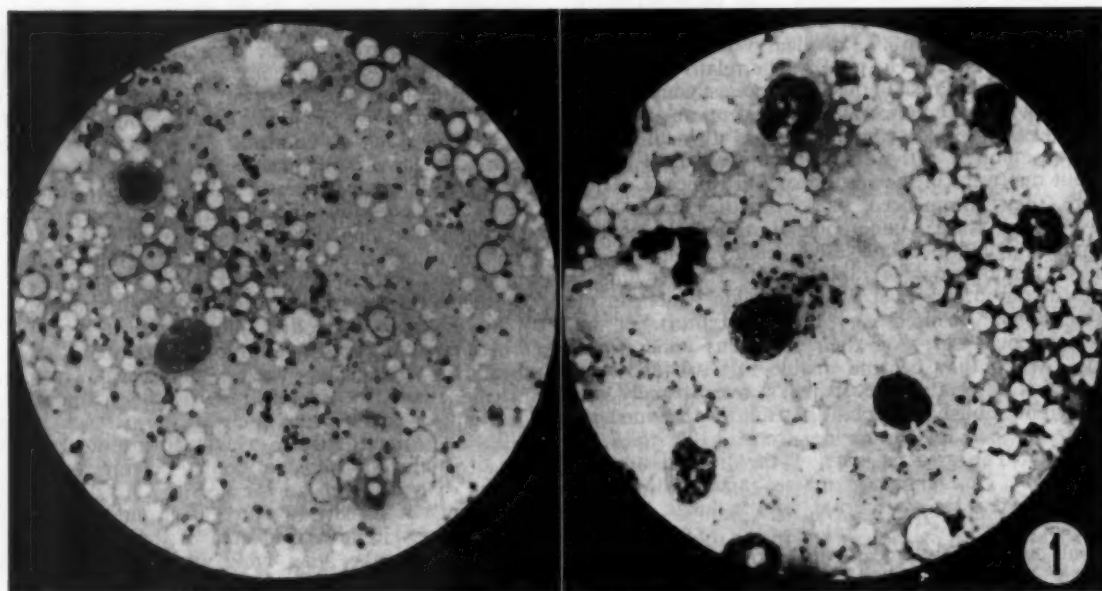
Gall Bladder and Bile Duct. Acute and chronic inflammation in one guinea-pig.

Stomach. Slight hypertrophy of the mucosa and excessive mucoid secretion in one rabbit.

The histological examination of some organs of one guinea-pig was performed in the Institute for Tropical Diseases in Hamburg. The report (signed Prof. Nauck) described the following pathological changes:

In the Intestines: Large necrotic patches involving all layers of the intestinal wall with detachment and destruction of the mucosa without marked cell infiltration. Adjoining the destroyed mucosa are areas of highly hyperplastic lymphoid tissue.

In the Spleen: Slight hyperplasia of the lymph follicles, thickening of the reticulum. Proliferation of the reticulo-



In some cases they were apparently in good health until the last moment and died in sudden collapse. In numerous cases organs of the dead animals were sent to the routine division of the S.A.I.M.R. for histological examination. Scrutiny of the reports of this division (signed by Dr. Simson) reveals the prevalence of the following lesions:

Liver. The presence of marked congestion and chronic inflammatory, periportal, small, round-celled infiltration was recorded in four rabbits and in two guinea-pigs. In these two guinea-pigs as well as in another guinea-pig the liver showed minute foci of necrosis. Fatty degeneration in the cells of the lobules was present in one rabbit. Early cirrhosis of the liver was diagnosed in another rabbit.

Adrenals. One rabbit showed early fatty degeneration of the cortical cells. In one guinea-pig, in addition to fatty degeneration, necrotic foci were present in the cortex.

Lymph Nodes. Inflammatory hyperplasia in three rabbits.

Kidneys. One rabbit showed generalized, marked, perivascular, small round-celled infiltration 'which is a suggestive indication of the circulation of a toxic substance in the blood.'

Spleen. One guinea-pig showed hyperplasia of the lymphoid tissue, proliferation of the sinus epithelium, congestion and slight pigmentation; another guinea-pig showed small abscesses surrounded by a cellular granulation tissue.

endothelial elements and of the pulp cells. In the pulp minute foci of necrosis; in the centre of these foci agglomeration of bacteria. The necrotic parts are surrounded by a granulation tissue formed by round cells and proliferation of connective tissue and small numbers of granulocytes.

Most probably these lesions are due to an infection by a virus which, with or without bacterial invasion, may produce abscesses and necrosis in the inner organs.

To exclude the possibility that the organism in question is a parasite of the experimental animals, in each experiment controls, guinea-pigs as well as rabbits, were killed and examined. Inclusion bodies as described above could never be detected in their organs.

The presence of such bodies in the hypophysis of these cases of carcinoma may be merely accidental. It is possible that the natives concerned have had another disease caused by rickettsia and that at the time of their death they still were carriers of the germs. On the other hand it is remarkable that the cases referred to occurred at great intervals and amongst natives of different tribes. Furthermore, I could never detect these organisms in natives of the same tribes who died of other diseases at the same time. I examined 16

controls in all; in eight of them guinea-pigs were inoculated. Microscopic examinations of smears of the hypophyses of these controls and of the adrenals of the guinea-pigs always gave negative results.

The records of the histological examinations of the organs of the animals used in my transmitting experiments show that the lesions in these organs apparently were due to a toxic substance produced by the 'rickettsia'. Although one must be guarded in forming too far-reaching conclusions, the presence of the same organisms in the human hypophysis cannot be irrelevant. The normal function of this gland, which regulates the growth of the body, may be disturbed in the form of stimulation or inhibition, thus adversely affecting the normal metabolism of all the endocrine glands. Abnormal stimuli from such an hypophysis may cause a typical proliferation of cells at a *locus minoris resistentiae*. Malarial and bilharzial infestations which are very wide-spread amongst the native tribes from which my cases came, may have created such a *locus minoris resistentiae* by damaging the liver cells.

Any discussion at this stage of how and where the natives concerned may have contracted the infection would be beyond the scope of this paper.

My experiments are still incomplete and of a preliminary nature. My intention had been to collect by these preliminary experiments sufficient material which would justify a repetition of the experiments on a broad basis. When I reached this stage the outbreak of war unfortunately prevented any further work. For the same reason I was not able to compile my results at an earlier date, as for years I had no access to my files and to the stained films of the parasites. The most important question, whether or not the organisms found by me are capable of contributing in any way to the

formation of tumours, therefore remains still open. To solve it, guinea-pigs should be inoculated with emulsions prepared of the hypophysis of natives who died of carcinoma, preferable primary carcinoma of the liver. The guinea-pigs should be killed at certain intervals and animals more susceptible to malignant tumours, e.g. white mice or rats, dogs, chimpanzees, should be inoculated with emulsions of the adrenals of these guinea-pigs. The adrenal medulla of guinea-pigs is apparently a very suitable nutrient, for these organisms, in which they multiply intensively. Transmitting experiments of this kind which I had started with dogs, came to a premature end.

SUMMARY

1. In the hypophyses of 17 native mine workers, who died of primary carcinoma of the liver, intra-cytoplasmic inclusion bodies were present. These bodies could not be demonstrated in natives of the same tribes who died at the same time of other diseases.

2. In the subinoculated guinea-pigs and rabbits these inclusion bodies appeared in the cytoplasm as well as in the nuclei of the host cells in various organs.

3. The nature of these inclusion bodies is not fully understood, but it is regarded as significant that they appeared in the patients as well as in the experimental animals.

4. From these preliminary observations the question arises whether these inclusion bodies represent inclusion bodies of a virus or a type of rickettsia. More work is essential in order to establish their true nature, and to come to a conclusion whether these organisms are capable of contributing in any way to the formation of malignant tumours.

A CASE OF THE SENEAR-USHER SYNDROME

JAMES MARSHALL, M.D.

Johannesburg

The Senear-Usher syndrome is a relatively rare condition embodying features of lupus erythematosus, pemphigus and seborrhoeic dermatitis. The first full description of the condition was made in 1926 by Senear and Usher¹ under the title of *An Unusual Type of Pemphigus*. Since then many other cases have been described, and by 1941 Touraine and Lortat-Jacob,² in one of the best reviews on the subject, refer to 77 observations, mainly in the American literature.

The disease occurs equally in the sexes, on white and black skin, and at all ages, although most cases occur in adults. The earliest lesions often appear on the face and may suggest either lupus erythematosus or seborrhoeic dermatitis. In other cases lesions appear first on the scalp, the trunk or the limbs and may be erythematous, seborrhoeic or even psoriasiform in character. Finally, a bullous eruption on the body, face, or both, suggestive of pemphigus, may be the first sign.

The original lesions may be localized and remain so for many months before the complete picture is presented. In the established case the syndrome is characterized by a generalized eruption in which the facial lesions differ markedly from those of the body. The *facial eruption* is often a typical lupus erythematosus with the usual scales exhibiting follicular plugs on their under surfaces. Vesicles or little bullae have been noted on the erythematous areas in a few cases. As in authentic lupus erythematosus, the lesions may eventually become atrophic and show telangiectases, but generally they remain soft and congested, even moist, and are subject to great variation.

More frequent are seborrhoeic eruptions of the face (resembling the congestive seborrhoea of Hebra) affecting the central area and sometimes the forehead, scalp and retro-auricular folds (Fig. 1). In this type the erythema is more marked and there is oozing and

erosion of the epithelium. Even here may be found the little follicular plugs on the under surfaces of the scales. This eruption is very variable in extent and severity, changing rapidly even from day to day and sometimes disappearing entirely for a short time. The appearance may sometimes suggest lupus erythematosus, at others a seborrhoeic dermatitis.

The elementary lesions on the body are usually small bullae and the sites of election are those of seborrhoeic dermatitis. They appear in seemingly healthy skin spontaneously or after slight injuries, and their appearance is heralded by itching. The bullae are very fragile and soon rupture spontaneously or on slight trauma

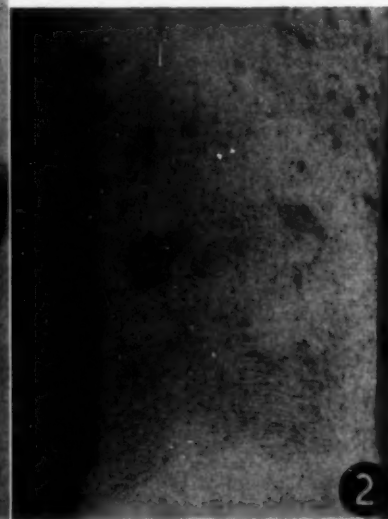
the disease. Slight fever may accompany the appearance of bullae, but usually the patient is little affected in health and is disturbed only by the inconvenience and itch. No pathological changes in the viscera have ever been discovered and the blood picture is not significantly altered.

The disease frequently pursues a chronic benign course with remissions (spontaneous or therapeutic) and exacerbations over many years, the clinical features sometimes varying greatly at different times. Remissions may last a few months, and the longest reported is 11 years. Complete cure should be pronounced, therefore, only after a very long delay. In a number of cases the



Fig. 1. Facial eruption of the seborrhoeic dermatitis type (Touraine and Lortat-Jacob).

Fig. 2. Bulla on arm with pigmented macules on sites of earlier bullae (Touraine and Lortat-Jacob).



leaving moist erosions surrounded by a halo of erythema. Confluence may denude quite large areas. These erosions heal slowly leaving pigmented macules or, rarely, little white scars (Fig. 2). Some bullae and erosions become covered with oily, yellowish crusts giving again a seborrhoeic aspect to the eruption.

Sometimes the lesions, from the start or after the bullae disappear, may have an eczematous or psoriasiform appearance (Fig. 3). Verrucous, vegetating, impetiginous and furuncular eruptions have been described. Several types of lesions are commonly seen at the same time. Lesions of the mucous membranes have often been noted, usually in the mouth, sometimes on the genitals or anus. Nikolsky's sign can often be demonstrated at some time or other in the course of

picture changes to that of frank pemphigus with a fatal prognosis. No specific or consistently successful method of treatment has been discovered.

The nature and the classification of the Senear-Usher syndrome have been widely argued and it has been described as a variety of disseminated lupus erythematosus, as a form of pemphigus and as a separate entity. Touraine and Lortat-Jacob, stressing the importance of the seborrhoeic element and distribution of lesions, have suggested the name *la pemphigoïde séborrhéique*. In America pemphigus erythematosus (or erythematosus) is sometimes used synonymously.

As a result of recent histological studies, it seems to be generally agreed that the syndrome should be classified as a variety of pemphigus. The bullae in

pem
vege
a cle
a res
goe
histo
derm
the S
Tz
in th
pemp
from
Malp

cells
eosin
Th
Senear
urtica
descr
It is
comm
other

A w
disea

pemphigus vulgaris, pemphigus foliaceus, pemphigus vegetans and in the Senear-Usher syndrome are due to a cleavage in the substance of the stratum mucosum as a result of a complete acantholysis (Civatte³). Percival⁴ goes further in classification and, on clinical and histological grounds, groups pemphigus vulgaris with dermatitis herpetiformis, and pemphigus foliaceus with the Senear-Usher syndrome.

Tzanck's^{5,6} method of rapid cytodagnosis may help in the differential diagnosis of bullous eruptions. In pemphigus and the Senear-Usher syndrome cells scraped from the floor of a bulla are found to be those of the Malpighian layer; while in dermatitis herpetiformis the

that for the past nine months she had had two scaly patches on her face.

There were two brownish-red, slightly depressed patches, covered with thick adherent scales. One at the tip of the nose was about 1 cm. in diameter; the other high on the right cheek below the eyelid was oval, and 1 x 0.5 cm. The skin elsewhere was normal. There seemed no doubt that this was a case of chronic discoid lupus erythematosus, and over the next four months she was treated with bismuth metal (intramuscular) and by freezing the lesions with carbon dioxide snow. The result was very good and the lesion on the cheek disappeared without leaving a trace while that on the nose



Fig. 3. Psoriasiform lesions of the buttocks (Touraine and Lortat-Jacob).

cells are polymorphonuclear leucocytes, monocytes and eosinophils.

The case to be described is a typical example of the Senear-Usher syndrome, the only unusual feature being urticarial lesions which have not figured in any description of the condition in the literature consulted. It is not possible, at the present time, to make any comment on the relationship of the urticarial to the other lesions.

CASE HISTORY

A woman of 45 with no significant past history of disease, was first seen in November 1948. She stated

left only a negligible depressed scar. While she was under treatment she complained of occasional attacks, lasting only a few hours, of what appeared to be urticaria on the arms and legs; but the writer was never able to see her in an attack.

She was not seen again for nearly a year, during which she resided in Durban. In January 1950 she returned complaining of a generalized itching eruption of a few weeks' duration and of a recurrence of the lesion on the nose. The old lesion of the nose was pink and finely scaling. On limbs and trunk there was a diffuse erythematous rash suggestive of a generalized contact dermatitis. Treatment with bismuth and

carbon dioxide snow was begun again for the nasal lesion and for the dermatitis she was given liniment of calamine with 2% phenol and an antihistaminic by mouth.

In the course of the next month the character of the rash changed. The distribution was widespread, but the lesions became discrete scaling papules, sometimes crusted after scratching (Fig. 4). The scalp became

she had previously described and that she had continued to have attacks since the beginning. The cause is, so far, undiscovered, but antihistaminics cut short the attacks.

On one occasion it was possible to make a scraping of the floor a freshly ruptured bullous lesion according to the method described by Tzanck. Cells of the Malpighian layer were identified.

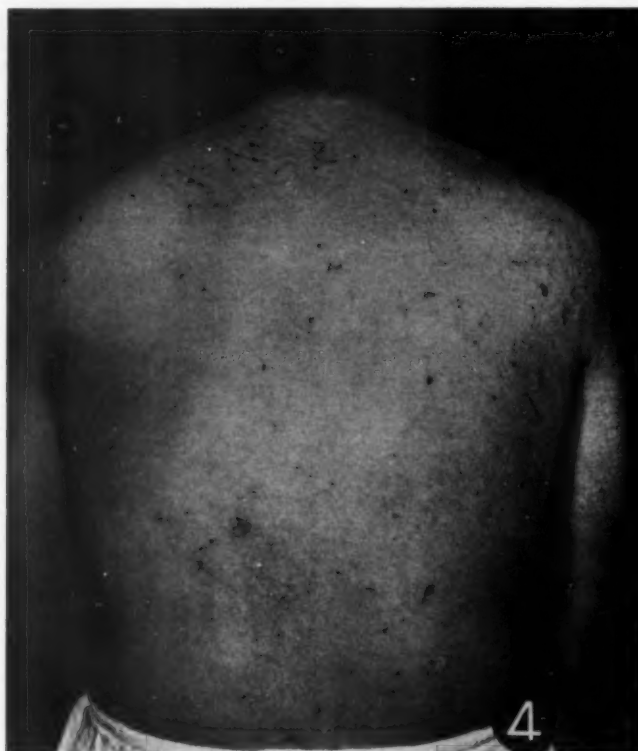


Fig. 4. Papular and crusted lesions, and one recently ruptured bulla at left centre (Marshall).
Fig. 5. 'Lupus erythematosus' of the nose, in the healing stage. Diffuse scaling of seborrhoeic type on the face and the scalp (Marshall).

thickly covered with scurf and fine scaling appeared on the face, particularly marked at the hair margin, eyebrows and lateral nasal furrows (Fig. 5). The appearance was that of seborrhoeic dermatitis. The patient stated that some of the lesions of body and limbs were bullous at first, but only the remains of the bullae were seen because of scratching. No mucosal lesions were ever seen.

The scalp was treated with a sulphur and salicylic acid ointment and responded rapidly. The lesions on body and limbs disappeared slowly, and many left brownish patches of pigmentation some of which will probably remain permanently. By the beginning of April 1950 no active lesions of the type described remained, but the patient presented herself to show a large urticarial wheal about 10 cm. in diameter on the right thigh. She stated that this was the type of lesion

Summary. The main clinical and histological features of the Seneur-Usher syndrome are described. A case of the syndrome showing an unusual feature, urticarial lesions, is presented.

The writer wishes to acknowledge his thanks to Dr. Albert Touraine for Figs. 1, 2 and 3 from the Saint-Louis Hospital, Paris, collection; and to Dr. Derrick Morris, Johannesburg, for taking the photographs for Figs. 4 and 5.

REFERENCES

1. Seneur, F. E. and Usher, B. (1926): *Arch. Derm. Syph.*, **13**, 761.
2. Touraine, A. and Lortat-Jacob, E. (1941): *Ann. de Derm. et de Syph.*, **1**, 28.
3. Civatte, A. (1949): *Rapports*, 7^{ème} Cong. Derm. et Syph. de Langue Franç., p. 63.
4. Percival, G. H. (1949): *Communications*, 7^{ème} Cong. Derm. et Syph. de Langue Franç., p. 43.
5. Tzanck, A. (1948): *Ann. de Derm. et de Syph.*, **8**, 205.
6. Tzanck, A. and Aron-Brunetière, R. (1949): *Communications*, 7^{ème} Cong. Derm. et Syph. de Langue Franç., p. 33.

Ro
ma
met
pha
Use
1
chil
2
3
4
5
or 1
6
7
8
the
9
cuta
10
wate
mus
purp
R
rub
of s
ensu
addi
In
are
may
dilu
reco
show
boxe

BRAN

De
xanth
table
Pro
is or
symp
inhib
auton
paras
revel
medic
Ind
be a
sisten
also i
Ad
every
to the
the u
shoul
To co
six ho
ulcer
appro
to pr
eviden
therap
Som
difficu
sympt
tion h
necess
encour

NEW PREPARATIONS AND APPLIANCES

RONDASE: THE SPREADING FACTOR
HYALURONIDASE (EVANS)

Rondase is a purified hyaluronidase of mammalian testes manufactured by a special process and dried by a lyophilic method. It is controlled chemically, bacteriologically and pharmacologically.

Uses for Rondase:

1. In hypodermoclysis, particularly in young infants and children where intravenous infusion is difficult.
2. Aid to subcutaneous administration of drugs.
3. Aid to subcutaneous administration of fluids.
4. For pyelography in infants.
5. Aiding the removal of viscid exudates from peritoneal or pleural cavities.
6. Injection into ganglionic and mucous cysts.
7. Injection into the cavities of pathological joints to lower the viscosity of the exudate.
8. Together with local anaesthetics in surgery and dentistry.
9. Together with Adrenaline or Aminophylline as a subcutaneous drip in status asthmaticus.
10. As a factor hastening the spread and absorption of water-soluble radio-opaque substances deposited intramuscularly, intracutaneously and subcutaneously for X-ray purposes.

Rondase is available as a freeze-dried preparation in 7 ml. rubber-capped vials. Each vial contains approximately 3 mg. of solid material, and the method of distribution and drying ensures uniformity in dosage and complete re-solution on the addition of water with unimpaired activity.

In preparing the enzyme for use, the contents of the vial are dissolved in 1 ml. of sterile distilled water. This solution may then be used parenterally, with or without further dilution according to the therapeutic indications. After reconstitution in sterile distilled water the resulting solution shows activity in a dilution of 1:50,000. It is packed in boxes of 6 rubber-capped vials.

BANTHINE BROMIDE—SEARLE

BRAND OF METHANTHELIN BROMIDE FOR TREATMENT OF PEPTIC ULCER

Description: Chemically, Banthine is diethylaminoethyl xanthene-9-carboxylate methobromide and is supplied in scored tablets of 50 mg. each.

Properties and Advantages: This true anticholinergic drug is orally effective for the control of the vagotonia and parasympathotonia of peptic ulcer. This control is effected by inhibiting the action of acetylcholine in the ganglia of the autonomic sympathetic and parasympathetic systems and in the parasympathetic postganglionic nerve endings. Toxicity studies reveal Banthine to be a potent but therapeutically safe medicament.

Indications: Clinically, Banthine has been demonstrated to be a most satisfactory agent for peptic ulcer in that it consistently reduces the commonly associated hypermotility and also it usually abolishes or reduces excess acidity.

Administration: The initial dosage may be 50 or 100 mg. every six hours, day and night, with subsequent adjustment to the individual patient's needs and tolerance. In addition, the usual adjunctive measures of diet, rest and relaxation should be prescribed for at least the first few weeks of therapy. To control high night secretions, night doses should be taken six hours before the usual time of rising. Further, after the ulcer is healed, it is important that a maintenance dosage, approximately half of the therapeutic dosage, be continued to provide a reasonable assurance of non-recurrence. No evidence of chronic toxicity has been observed in maintenance therapy covering a period of more than 16 months.

Some dryness of the mouth, mild blurring of vision, slight difficulty of urination or gastric fullness may ensue; these symptoms usually decrease or disappear on continued medication but if they are severe, adjustment in dosage may be necessary. Severe reactions with Banthine have not been encountered.

POTENT BUCCAL HORMONE THERAPY

Hormone tablets which for the first time permit complete or almost entire utilization of the parenterally effective hormones through absorption from the buccal pouch of the mouth, are now available. Research has finally provided successful formulation of a new solid absorption base, Schering's Polyhydrol, as a more effective means of hormone administration. The base is a polyethylene glycol product and enables the intra-oral use of hormones which heretofore were administered only by injection.

The hormones are absorbed directly into the systemic circulation and by-pass the liver. There is little or no inactivation or loss of potent effect of these valuable substances. If swallowed in the form of oral tablets, the hormones are remarkably reduced in potency.

Reports published recently show the results obtained with Cortate Buccal Tablets in the treatment of Addison's disease. This condition heretofore could not be treated successfully with desoxycorticosterone acetate orally in ordinary tablet bases. However, results equal to those with parenteral administration, were obtained through the use of the hormone in these special buccal tablets because of the efficacy of the new base. Also available for buccal therapy are tablets of Oretone (Testoviron), Pranone (Proluton) and Profolol (Progynon).

Profolol Buccal Tablets are made of pure oestradiol in Polyhydrol and are as effective milligram for milligram as the injectable oestrogenic product. The 0.25 mg. Buccal Tablets are packed in bottles of 30 and 100.

Oretone Buccal Tablets are composed of testosterone propionate in Polyhydrol. It is the most potent injectable form of the male hormone commonly used. Its buccal prototype is at least 60% as active. Two strengths of 2.5 mg. and 5 mg. tablets are available in bottles of 30 and 100.

Pure progesterone, the injectable corpus luteum hormone, is available in the form of Pranone Buccal Tablets in Polyhydrol. These tablets, too, approach the injectable Pranone (Proluton) in potency. Buccal Tablets of 10 mg. are packed in bottles of 30 and 100.

Buccal Tablets are manufactured in the Union of South Africa by Scherag (Pty.) Limited, Johannesburg, for and under the formula and technical supervision of Schering Corporation, Bloomfield, N.J.

FAIR COPYING DECLARATION

FAIR DEALING IN REGARD TO COPYING FROM
SCIENTIFIC PERIODICALS*

For some time scientists have discussed the problems, created by the Copyright Act, which arise when they wish to obtain reproductions of excerpts from scientific and technical periodical publications. In the normal course of their work, scientists occasionally require for frequent reference, copies of particular papers appearing in scientific periodicals which are not readily available to them. It is assumed that they take all reasonable steps to secure the original journals or separates of papers they require, either from the author or the publisher, but it is recognized that many requirements cannot be met from these sources. We have, therefore, agreed to make the following declaration to ensure that scientists have no undue difficulties in obtaining copies from libraries and other organizations supplying information. This declaration does not apply to books and other non-periodic or non-serial publications.

We will regard it as fair dealing for the purpose of private study or research when a non-profit making organization, such as a library, archives office, museum or information service, owning or handling scientific or technical periodicals published by us makes and delivers a single reproduction of a part of

* Issued by the Royal Society and published by the authority of the Head Office and Journal Committee of the Medical Association of South Africa.—Editor.]

an issue thereof to a person or his agent representing in writing that he desires such reproduction in lieu of a loan or manual transcription and that he requires it solely for the purpose of private study, research, criticism or review, and that he undertakes not to sell or reproduce for publication the copy supplied, provided:

1. The recipient of the copy is given notice that he is liable for infringement of copyright by misuse of the copy, and that it is illegal to use the copy for any further reproduction.

2. The organization making and furnishing the copy does so without profit to itself.

3. Proper acknowledgment is given to the publication from which the copy is made.

4. Not more than one copy of any one excerpt shall be furnished to any one person.

The exemption from liability of the library, archives office, museum or information service herein provided shall extend to every officer, agent or employee of such organization in the making and delivery of such reproduction when acting within the scope of his authority of employment. This exemption for the organization itself carries with it a responsibility to see that employees caution those receiving copies against the misuse of material reproduced.

We reserve the right to take action against any person or organization copying or misusing for any purpose whatever the whole or part of work published by us without abiding by the conditions laid down herein unless the person or organization has our special permission in respect of the item to be copied.

We reserve the right to withdraw this declaration.

VERENIGINGSNUUS : ASSOCIATION NEWS

A MEDICAL SERVICE FOR SOUTH AFRICA*

A. L. FERGUSON, M.B., Ch.B., D.P.H., D.T.M., D.T.H.
Bloemfontein

1. If this Country is to have a reasonably efficient Medical Service, suitable to the needs of our fellow-countrymen, it must be based on the fundamental principle of service to all who need medical attention. There is no profession more noble than the one of which we are a part. Through tireless days and nights we have been as devoted to our profession as the Southern Cross has been to its course through the heavens. Had we not been, research, discoveries and the advancement of medical science would be where they were two hundred years ago.

2. The amount of real good the doctor does very largely depends upon the type, quality and depth of the relationship between the doctor and his patients. Anything which disturbs this relationship must lead eventually to deterioration in the quality and value of the medical service rendered, and give rise to a doctor-patient relationship based on monetary rather than on medical rewards.

3. The evolution of the specialist practitioner out of the general practitioner, inevitably produced as a means of self-protection by the outstanding general practitioner and as a result of the enormous accumulation of knowledge now at the disposal of medical men, has created a number of medical problems which have not yet been solved either in this or any other country. In most countries where this problem has been tackled, it has been so done, not by the medical profession, but by the pressure of the general public on Parliament. The result appears to be that the advancement of medicine has been slowed down, the quality of medical service has deteriorated, and the vital doctor-patient relationship has suffered.

4. In my opinion, this is because the medical profession is not sufficiently well organized to meet present-day conditions; indeed, it is not in a position to dictate the medical policy of its day and generation.

* This Memorandum expresses my own personal views and is submitted at the express request of the Bloemfontein Branch of the S.A. Medical Association.

5. This failure of the Profession to organize itself on a sound footing may be attributed to a combination of several factors:—

(a) Lack of unity of purpose among its members.

(b) An executive weakness in its officially recognized Associations.

(c) The existence of a commercial outlook, a seeking of wealth and power as a reward for services rendered rather than the well-being of the patient.

(d) A drifting away of medical men into whole-time jobs under lay control for want of any better alternative to competitive commercialized medical practice.

6. Fifty years ago, the great majority of doctors were subject to no sort of 'lay control' and responsible only to their patients, to the Common Law, and to their own consciences. Within the limits of medical knowledge of that day, this system worked very well. To-day, with the rise of specialization and of political power, the position of the doctors is, generally speaking, practically the reverse, there being very few practicing doctors to-day who are entirely free from some form of 'lay control', and the status of the doctor is deteriorating.

7. I consider it essential that the status held by doctors fifty years ago should be recaptured. It is, of course, impossible that this can be done on an individual basis; the accumulated mass of useful medical knowledge absolutely precludes this. But it can be done on a team basis. Some steps towards this most desirable end may be seen in the development of 'group practice', but up to the present this is not sufficiently wide-spread; nor do I think that 'group practice' is the answer to the present-day problems facing medical men. For groups of medical men may readily become rivals, with all the unhappy consequences of an unscrupulous commercialism.

8. The answer lies rather in the establishment of a medical trade union or a medical public utility company whose object is the creation of a public medical service. This service must be 100% efficient, all-embracing and available to all. To make it a success, every qualified doctor in the Country must belong to it.

9. It is absolutely essential, not only for the future welfare of the practitioners, but also for the welfare of medical practice and the ultimate benefit of the human race, that the medical profession control its own destiny. Now is the time to organize, to halt the encroachment of 'lay control'. Faith is needed in our profession and in our goal.

10. It is essential that we realize very clearly what our objectives are. Our main objective must always be to serve our fellow man, and to sacrifice this objective, on the altars of specialization and/or lay control (the real synonym for state or commercial service) as we are doing now, will surely lead us into the wilderness of eventual darkness, instead of into the light of truth. The future happiness and health of the world depends very largely on the doctors. Dare we fail in our great mission?

11. The practice of medicine may well be classified into three main categories, each of which merge into the other:—

(a) Preventive.

(b) Curative.

(c) Rehabilitative (which has now taken the place of palliative medicine).

The following is a brief list of the various services which fall under the above three headings:—

1. Vital Statistics.
2. General epidemiology; communicable diseases; immunization services.
3. Laboratory services; public health; hospital research.
4. Radiological services; physiotherapy.
5. Mental health services.
6. Dental services.
7. Therapeutic drug services.
8. Maternity services.
9. Pediatrics.
10. Geriatrics (care of the aged).
11. Hospital and clinic services.
12. Nursing and health visitor services.
13. Specialist services.
14. Local health services.
15. General practitioner services.
16. Medical and hospital supplies.
17. Blood transfusion services.
18. Ambulance services.
19. Industrial medical services.
20. General research.

21. Medical training: schools and hospitals and universities.
22. Cost of medical care.
23. Administrative services; the Almoner.
24. Miscellaneous: cripple care; care of the blind; the lepers; the tuberculous; nutritional services; the provision of houses; etc.
25. The patient; the doctor-patient relationship.
26. The medical profession; organization discipline.

The above list is not placed in any order of priority; all branches, including all ancillary services, are important and dependent upon each other. But there are two which must be placed first—and these are (a) the patient and (b) the general practitioner. The patient must be regarded not as a separate entity, but as a member of a family group; what affects any one member of a family affects the rest of the family. The spearhead of the medical attack on diseases, ill-health and unhappiness is the general practitioner. As the patient is the focal point of all our efforts at human betterment (the doctor is made for the patient, not the patient for the doctor), so is the general practitioner the king-pin of all our services.

12. The Medical Profession must so organize and discipline itself that it may give an efficient and first-class service to whoever is in need and wherever such service is needed. At present we give no such service; we go 'where we can make a living'. We must change our attitude of mind and practice. Our service is unbalanced, and thousands of persons are without the medical help so badly needed.

13. The following scheme is suggested as being sufficiently comprehensive to meet all the reasonable demands of the patient and his family.

(a) The population of South Africa should be divided into units which can be best served by a medical team comprised of representatives of all those services listed above. Depending upon the various needs of the population affected, the size of the unit to be served will vary from 15,000 persons to 30,000 persons. Each unit will be self-contained, under its own medical staff, and will be responsible for a complete medical service within its area of operations.

(b) Serving each unit area will be a general hospital, so constructed that it will deal with all types of patient, including communicable diseases except tuberculosis and leprosy which will be separately provided for. Each such hospital will have all the necessary departments of a modern hospital, plus convalescent section and an outpatient section and a casualty section, laboratory and post-mortem or pathological section, disinfecting station, etc.

(c) Attached to each hospital will be an ambulance section. Such ambulances will be either motor or airplane, or both. In the larger urban centres where there is already an ambulance service attached to the local fire brigade this service is to continue undisturbed meanwhile.

(d) In each unit area will be two or more surgery-dispensaries staffed by general practitioners, a senior and a junior at each. These surgery-dispensaries will be properly laid out and equipped, and placed at strategic sites where they will best serve the community. Here the patients will be screened to relieve the burden on the hospitals. These surgery-dispensaries will be connected by telephone with the hospital so that the services of a consultant may be called upon, or the ambulance sent for, as the case may be. Residences for the doctors and dispensers will be provided at low rental near the surgery-dispensary.

(e) In each area will be a public health section staffed by the necessary staff—health medical officer, health inspectors, health visitors, diverminising unit, etc.

(f) In each unit area will be a stores section on which requisitions will be made for all necessary medical and surgical and public health supplies. This stores section will in turn submit its requirements to a central buying organization so that medical stores may be bought or imported in bulk, thus reducing costs.

(g) Administration. Each unit area will administer itself, subject only to certain general requirements. There will be a committee on which all medical officers will have an equal voice, under a chairman elected for a three-year period. Each unit area will send one or more representatives to a central medical body which will deal with matters of general policy:—conditions of service, leave regulations, study regulations, co-ordination between adjacent unit areas, etc.

(h) Finance. In return for an over-all service covering the

whole country, the State must underwrite or guarantee an annual fee based on a *per capita* basis. The State must provide and equip the hospitals.

Every adult person from the age of 16 to 60 is to contribute on a *per capita* basis to a central medical fund. Responsibility for collection of this fee will be either the State's (through the various receivers of revenue or post offices throughout the Country), or through various insurance companies. This *per capita* fee will be called a Medical Tax Fund. It will cover medical fees only, not hospitalization, which is a Provincial or Central Governmental responsibility; nor will it include dental chemist services (until such time as these two services decide to adopt a similar scheme). There are some 12,000,000 persons in the Union. To serve this number efficiently, 12,000 doctors are needed, roughly four times the number available to-day. The incomes to be earned by these 12,000 doctors will vary from, say £150 per annum to £3,500, the average being in the neighbourhood of £1,500.

$£1,500 \times 12,000 = £18,000,000$. Of the 12,000,000 inhabitants, approximately half will be either under 16 or over 60 years of age. Hence, the estimated number of persons who will be required to pay into the Medical Tax Fund will be 6,000,000. Thus:—

$$\frac{£18,000,000}{6,000,000} = £3 \text{ per head per annum or } 5s. \text{ per head per month.}$$

These contributions to be paid either monthly or annually, with a proportionate refund in the case of death of the contributor. This Fund will be administered by the medical profession itself through a specially appointed Finance Secretariat. Pre-paid medical care is the answer to the present financial burden of illness borne by the general public.

(i) Medical men must organize themselves professionally, and undertake to give an up-to-date and efficient service to all.

(j) Conditions of Service:—(a) All medical men must be prepared to go wherever they may be required. In the change over from the present system to the new Public Medical Service, as little dislocation as possible will be done. That is, full advantage will be taken of the position as it exists at the time of the change over.

(ii) The Union will be subdivided into Medical Unit Areas, based not on district, magisterial or provincial boundaries, but on geographical and population considerations. Each MUA will have its team of medical men so placed as to give the best service to the community concerned.

(iii) In charge of each MUA there will be a Principal Medical Officer under whom the staff will work. This staff will range from junior housemen to senior specialists. But the whole staff will work as a team. Every fourth year members of the staff will be eligible for promotion. Promotion will not necessarily be automatic and will be conditional to the doctors concerned having performed their work efficiently and having done six to nine months post-graduate study at recognized medical schools either at home or abroad. A post-graduate fund will be established to provide reasonable expenses and the regular monthly salary during this period. A pension fund based on endowment insurance will be taken out in favour of every member as he joins the staff.

(k) In order to put this matter on a proper legal footing the medical profession should approach Parliament for a special charter to be styled the Doctors' Charter, in which the above principles of service and organization are embodied. If the profession stands firm on this point, there should be no difficulty in persuading Parliament to grant us this Charter.

(l) In any event, whether, to begin with, Parliament is prepared to grant us a Doctor's Charter or not, the Profession should organize itself on a sound basis. To do so on the lines of a Public Utility Company may be all right, provided that profits are limited and controlled and are devoted to improving the Service and to the advancement of medical knowledge, and *not* the pockets of individual members of the profession. The alternative is to organize the Profession along trade union lines—perhaps this would be the better method in the end—though not perhaps in line with our present ideas about our dignity!

14. If this suggestion of the necessity of organizing the profession along the lines above indicated, though but briefly, is accepted, it is strongly recommended that a Commission composed of medical men be got together to thrash out the

full details including those of compensation to individual doctors should this be necessary. I should be only too pleased to serve on such a Commission in my personal capacity.

Dr. Beck de Villiers: 'n Verandering in die organisasie van mediese dienste moet kom aangesien dit oral in die wêreld gevoet word. Die Vereniging moet in die eerste plek die leiding in hierdie saak neem, en nie volg nie. Ten tweede, en hierin is die kern-gedagte, wat is die dienste wat gestel moet word aan die pasient met die famielie as groep? Wat kan die publiek verwag?

- i. Die algemene praktisyn moet nie 24 uur op diens wees nie.
- ii. Is ons opleiding reg?
- iii. Is die indeling van algemene praktisyn en spesialiteite reg?
- iv. Kan ons mekaar affos?
- v. Wat sal ek vra, as die mediese dienste aan my gestel word?

PASSING EVENTS

We regret to record the death of Dr. Israel Rivlin, of Benoni.

Congratulations to Dr. and Mrs. Robert Watson of Cape Town on the birth of a daughter.

Dr. P. J. M. Retief has commenced practice in African Life Buildings, 85 St. George's Street, Cape Town, as a specialist urologist. Telephone: 2-9243.

Dr. G. Selzer (of the Department of Pathology, Medical School, University of Cape Town) has left by air for the United States to spend three months at the Rockefeller Institute where she will do work on neurotropic viruses.

Dr. H. Griffiths, F.R.C.S. (Edin.) of Rondebosch, C.P., has been appointed a Clinical Fellow in Surgery at the Boston General Hospital, Mass., U.S.A.

DISABILITY GRANTS FOR NATIVES

The Council of SANTA appointed a sub-committee to investigate the whole question of disability and maintenance grants for Natives, because of the anomalies and shortcomings in the policy adopted towards Natives.

Mr. A. S. Goodbrand, Secretary of the Natal Anti-TB Association, Durban, convener of this sub-committee, wrote to the Secretary for Native Affairs on 22 August 1950 and pointed out the impossibility for any doctor to state that a Native would be rendered permanently unfit as a result of tuberculosis. He asked that Natives should be treated in the same way as people of other races. The Secretary for Native Affairs replied that it would be the policy of the Department in future to do so. This would unquestionably make possible a much more just and reasonable handling of the whole problem.

THE PROPOSED COLLEGE OF PHYSICIANS AND SURGEONS

A combined meeting of the Physicians' Group of South Africa and of the Association of Surgeons of South Africa will be held at Medical House, Hospital Hill, Johannesburg, on Thursday, 2 November 1950 at 8.30 p.m.

The purpose of the meeting is to discuss the proposed College of Physicians and Surgeons.

The annual meeting of the Physicians' Group of South Africa will be held before the combined meeting (at 7.45 p.m.) and the Association of Surgeons will hold a similar meeting.

EMPIRE MEDICAL ADVISORY BUREAU

South African medical practitioners who are thinking of visiting the United Kingdom should get in touch with Dr. H. A. Sandiford, Medical Director of the Bureau, at B.M.A.

House, Tavistock Square, London, W.C.1, so that all the facilities of the Bureau will be placed at their disposal.

Medical practitioners will find the Bureau helpful in arranging accommodation as well as post-graduate courses of study.

IN MEMORIAM

DR. KENNETH FRATER

On the very day of national mourning with its deep emotion in farewell to the beloved Patriot, sad coincidence removed from our midst a very distinguished and deeply loved colleague—and the cup was full indeed!

Gifted with intellect and abilities far above the average, Kenneth Frater possessed also that rare charm of natural poise and true friendliness; and he showed in his life and his work a great human sympathy and understanding.

These qualities deeply endeared him to a vast host of patients and friends to whom the sad reality of his passing was a bitter blow; but their sense of personal loss will be soothed by the pride they shared in him for what he was, in a friendship that he showed to them all.

We tender our sincerest sympathy to those who were dearest to him—his wife and three sons; and his father and mother and other members of his family at Paarl.

We feel that their great sorrow will be tempered with deep pride and an abiding faith.

W. H. D.

Rondebosch,
17 September 1950.

Die skielike heengaan van Kenneth Frater is 'n tragedie vir sy familie en 'n groot slag vir sy vriende, sy pasiënte en vir die volk van Suid-Afrika in die algemeen. Ons wil egter nie kla nie—ons durf nie—ons wil slegs ons dankbaarheid uitspreek vir wat hy was, vir wat hy in sy kort lewe kon verrig en vir die voorbeeld wat hy aan sy kollegas kon stel.

Frater was 'n man van weinige woorde, nederig en dood natuurlik. Hy was opreg in sy vriendskap en eerlik in sy kritiek. Hy was verheve bo enigiets kleinliks of gemeens. En soos sy lewe was so was sy werk. Hy was deurtastend in sy ondersoek, akkuraat in sy diagnose en beslis in die handhawing van sy standpunt nadat hy sorgvuldige oorweging geskenk het aan alle aspekte van 'n ingewikkelde saak. Hoevele male het hy met die bespreking van 'n pasiënt nie aan my gesê nie: „As daar mikroskopies niks in die uriene te vind is nie en die pyelogram geen abnormaliteit toon nie, dan is dit baie onwaarskynlik dat 'n oënskynlike urologiese klage werklik iets urologies is”. Ek noem dit omdat hierdie gesigspunt so tieperend was van 'n man wat seker was van homself en oortuigd dat sy standpunt onaanvegbaar was. Maar hy was nie alleen beslis in sy diagnose nie, hy was net so beslis ten opsigte van sy behandeling. Hy moes baie seker wees van die aanduidings vir 'n operasie, alvorens hy dit sou aanbeveel. Hy het geen kwaksalwery geduld nie en hom nie gewaag aan 'n uitleg waarvoor hy nie wetenskaplike verklarings kon gee nie.

Frater het 'n tradisie opgebou. Sy werk sal leef lank nadat hy heengegaan is. Ons volk is armer as gevolg van sy heengaan, maar ryker in die tradisie van die minsaamheid, akkuraatheid, bekwaamheid en diensvaardigheid wat hy nagelaat het.

Naas sy huislike kring sal sy opgewekte stem, sy vriendelike geselligheid en sy wel oorwoë raadgewings op geen plek meer gemis word nie dan in die Volkshospitaal waar hy soveel van sy tyd in onvermoeide diens aan sy medemens deurgebring het. Is dit blote toeval dat hy sy mes kon neerlê terwyl hy dit nog met genot kon hanteer en dat hy dit kon doen juis in die inrigting waar hy so graag gewerk het? Sou hy dit nie so verkies het nie?

Vir sy familie is ons bede dat die herinnering aan al die skoonheid en die grootsheid van sy lewe in die dae van eensameheid wat voorlê vir hulle as 'n gedurige inspirasie sal dien en hulle sal sterk om die stryd van die lewe voort te sit soos hy graag sou sien dat hulle dit doen.

F. D. du T. van Zijl.

REVIEWS OF BOOKS

ADVANCES IN CHEMOTHERAPY

Recent Advances in Chemotherapy: Vol. 1. By G. M. Findlay, C.B.E., Sc.D., M.D., F.R.C.P. (Pp. 625. 36s. 3rd ed.) London: J. & A. Churchill Ltd. 1950.

Contents: Preface to Third Edition. Preface to First Edition. 1. History of Chemotherapy. 2. Chemotherapy of Diseases due to Insects. 3. Chemotherapy of Helminthic Infections. 4. Chemotherapy of Amoebiasis. 5. Chemotherapy of Babesiosis and other Protozoal Infections. 6. Chemotherapy of Leishmaniasis. 7. Chemotherapy of Trypanosomiasis.

The scope of chemotherapy has become so vast that this well-known and authoritative work, originally occupying one volume, is now to be presented in four volumes. The first of these deals with the chemotherapy of scabies and of helminthic and protozoal diseases with the exception of malaria, with a wealth of information on these subjects. Considerable advance, largely stimulated by the war, has been made in the treatment of these diseases. Details are clearly and systematically provided, with a full bibliography at the end of each section. For example, there are 13 pages dealing with the 'Miracils', new compounds effective in schistosomiasis; the pharmacology and animal toxicity studies and concentrations of Miracil D in various tissues are given, the effect of the drug in human schistosomiasis, and its estimation in blood and urine. Similar studies on Miracils A, B and C are presented.

There are numerous tables of chemical compounds which have been investigated in various diseases, chemical formulae, and the effects of doses by various routes of administration. Much of the information is derived from medical journals and reports not ordinarily available to the general medical reader, so that this edition becomes of the nature of a minor encyclopaedia on chemotherapy.

Attention may here be drawn to the second volume which will deal entirely with malaria, the third with the chemotherapy of bacterial, rickettsial and virus infections, while the fourth will survey sulphonamides and antibiotics, and discuss the general principles of chemotherapy. These valuable works should be acquired by all investigators and libraries requiring a store of information on chemotherapy.

OCCUPATIONAL THERAPY

Occupational Therapy: Principles and Practice. Edited by William Rush Dunton, Jr., M.D. and Sidney Licht, M.D. (Pp. 321 + xv. With 12 illustrations. 45s. First edition.) Illinois: Charles C. Thomas. England: Blackwell Scientific Publications, Limited.

Contents: 1. History of Occupational Therapy. 2. The Principles of Occupational Therapy. 3. The Prescription. 4. Occupational Therapy for Psychiatric Disorders. 5. Kinetic Occupational Therapy. 6. Occupational Therapy for Amputees. 7. Occupational Capacity and Therapy in Heart Disease. 8. Occupational Therapy in Tuberculosis. 9. Occupational Therapy in the Treatment of Cerebral Palsy. 10. Education for Hospitalized Patients. 11. Bibliography in Neuropsychiatry. 12. Recreational Therapy. 13. Drama Therapy.

Occupational therapy, like many other of the ancillary medical services, has grown vastly in stature since the war years. The concept of rehabilitation as an active phase in the cycle of medical and surgical therapy has banished the passive term convalescence from our medical vocabulary; and occupational therapy is an important facet of rehabilitation.

A knowledge of occupational therapy, its indication and accurate prescription, must be based on sound and wide clinical experience. The prescriptions of these principles should be made by a physician who is well versed, both in the mechanics of occupational therapy and in the physiological limitations of the disease for which the therapy is advised.

It is to be deplored that not only the dispensing but the prescribing of occupational therapy is left too often in the hands of lay technicians.

Occupational therapy in heart disease, tuberculosis and cerebral palsy, is accurately described and many worth-while ideas embodied.

It is a pity that the chapter on amputees does not stress the mechanical problems that confront the recipient of a new prosthesis. Almost half the book is devoted to occupational therapy in relation to psychiatry and in the chapter on bibliotherapy in neuropsychiatry it is interesting to learn that

the therapeutic value of Dorothy Parker and P. G. Wodehouse has not diminished.

This book is written essentially for the medical practitioner and gives a fair insight into the clinical value of occupational therapy in the wider process of rehabilitation.

WRIGHT'S PATHOLOGY

An Introduction to Pathology. By G. Payling Wright, D.M., F.R.C.P. (Pp. 569 + x. With illustrations. 30s.) London: Longmans Green & Company. 1950.

Contents: 1. Introduction. 2. Aetiology: The Causes of Abnormalities and Diseases. 3. The Inheritance of Abnormalities. 4. Infection: The Early Phases. 5. Infection: Its Establishment. 6. Infection: The Dissemination of Micro-Organisms Within the Body. 7. The Inflammatory Reaction. 8. Therapeutic Modifications of the Inflammatory Reaction. 9. The Effects of Injurious Agents upon Cells: Degenerations and Necrosis. 10. Tissue Reactions in Virus Infections. 11. Reparative Processes in Connective Tissues. 12. Chronic Inflammation and Amyloidosis. 13. Regeneration of Parenchymatous Cells. 14. General Reactions to Infection: Fever, Leucocytosis and Immunity. 15. Thrombosis. 16. Ischaemia, Embolism and Infarction. 17. Haemorrhage and Haemostasis. 18. Oedema. 19. Hypertrophy and Atrophy: Morphological Adaptations to Functional Requirements. 20. Neoplasia: Introduction and Nomenclature. 21. The Modes of Spread of Malignant Tumour Cells and the Formation of Metastases. 22. The Morphology and Metabolism of Tumour Cells. 23. The Aetiology of Tumours: Hereditary Factors. 24. The Aetiology of Tumours: Exogenous Factors. 25. The Aetiology of Tumours: Endogenous Factors and General Discussion. 26. The 'Precancerous State'. 27. The Pathology of Some of the More Common Tumours. Index of Names. Index of Subjects.

Professor Wright is well known to many generations of Guy's Hospital students as a stimulating and effective lecturer. There is surely no Guy's man who will not welcome the presentation of Professor Wright's excellent lectures in book form.

Throughout the volume the emphasis is on physiological fundamentals and the structural and functional changes which take place when the normal tissues are disturbed.

Unobtrusive references guide the enquiring student to a carefully selected literature in which he can follow up any aspect of the basis of pathology in greater detail.

The illustrations are well chosen and excellently reproduced and the publishers are to be congratulated on a most elegant volume, which makes the reading of it an added pleasure.

Professor Wright's *Introduction to Pathology* is an excellent basis for the clinical years of study and provides a sound approach to the more special divisions of pathology which the student meets in the rest of his curriculum.

OSTEOLOGY

Osteology for Dissectors: A Tutorial Pocketbook. By Robert King Howat, M.B., C.M., F.R.C.S., F.R.F.P. & S. (Pp. 292 with 46 illustrations. 15s.) London: Henry Kimpton. 1950.

Contents: 1. Introductory. 2. Vertebral Column. Ribs. Costal Cartilages. Costal Arches. Sternum. Shoulder Girdle. 3. Clavicle. Scapula. Humerus. Forearm Bones. Radius. Ulna. Carpus. Metacarpus. Phalanges. Note on some small muscles of the hand and palmar fascia. 4. Innominate Bone. Ilium. Pubes. Ischium. Pelvic Skeleton. Note on the deep muscles of the back and their associated fascias. Femur. Patella. Tibia. Note on the Synovial membrane and capsule of the knee joint. Fibula. Tarsus. Metatarsus. Phalanges. The Arches of the Foot. Note on Inversion and Eversion of the Foot. 5. Skull (General). Vertical Norma. Lateral Norma. Occipital Norma. Frontal Norma. Note on the muscles of Expression. Maxilla. Orbit. Pterygo-Palatine Fossa. Mandible. Hyoid Bone. Basal Norma. Anterior Basal Norma. Posterior Basal Norma. Note on the Soft Structures of the Posterior Basal Norma. Cranial Cavity Floor. Sphenoid Bone. Nasal Cavity. Ethmoid Bone. Palate Bone. Temporal Bone. The Auditory Passages and Chambers in the Temporal Bone. Note on the Cranial Dura Mater and its Relations. Appendix Nos. I-V. Index.

As an aid to dissectors this book is superfluous. The usual practical dissecting manuals and textbooks contain clear, coloured and instructive diagrams linked up with the appropriate descriptive text. Surely these are far more valuable to the student in his attempt to get the 'whole' approach to anatomy. The author in his preface states 'the description and study of the bones in isolation explains the long-standing reputation of osteology as the driest and duller department of anatomy'. This book merely subscribes to this anachronism, as osteology, especially in the dissecting-room, is 'alive' in its correlation with the body structures and their functions.

The stereotyped text is interspersed with only occasional features of practical interest (e.g. the 'give' of the sacro-coccygeal ligaments during parturition, notes on inversion and eversion of the foot, a note on the cranial dura mater and its relations, etc.) Lack of bold type for headings makes reading difficult (and study more so).

The reviewer cannot agree with some of the times of ossification which seem to be transcribed from book to book. These figures are mainly of a medico-legal (and less of an orthopaedic) interest, and for the sake of accuracy one must usually refer to statistical surveys for different sexes and racial groups; and dogmatism as regards ossification and fusion must be discouraged.

The section on the skull is interesting.

It is difficult to understand why in this book a special appendix should be devoted to the course of the femoral artery; and, moreover, its important and surgical relationships to the innominate bone and femur not even mentioned.

The book can hardly be said to be presented from a dissector's viewpoint. It presents no new or easier approach, and the title is considered inappropriate. It may be a useful reference book, but otherwise does not commend itself more than any other textbook of osteology.

MEDICAL STATISTICS

Principles of Medical Statistics. By A. Bradford Hill, D.Sc., Ph.D. (Pp. 282. 10s. 6d. 5th ed.) London: The Lancet Limited. 1950.

Contents: 1. The Aim of the Statistical Method. 2. Selection. 3. Presentation of Statistics. 4. The Average. 5. The Variability of Observations. 6. Calculation of the Standard Deviation. 7. Problems of Sampling: Averages. 8. Further Problems of Sampling: Proportions. 9. Further Problems of Sampling: Differences. 10. Further Problems of Sampling: χ^2 . 11. Further Examples and Discussions of χ^2 . 12. The Coefficient of Correlation. 13. Calculation of the Correlation Coefficient. 14. Life Tables and Survival after Treatment. 15. Common Fallacies and Difficulties. 16-17. Further Fallacies and Difficulties. 18. Calculation of Standardised Death-Rates. 19. Calculation of Standardised Indices. 20. General Summary and Conclusions. Table of χ^2 . Definitions. Exercises. Answers to Exercises. Index.

Medical statistics have come to play an increasingly important part in medical practice. The rapid developments in our appreciation of the importance of social medicine have made it imperative for the modern practitioner to have more than a nodding acquaintance with the principles of the statistical method. It has also become necessary to understand this basic way of evaluating the significance of clinical methods of treatment.

A useful feature of the new edition is the inclusion at the end of the book of statistical exercises based on the work covered in the various chapters. The conscientious reader will be relieved to hear that the answers to these problems have been provided at the end of the volume.

This book is a *sine qua non* for the completion of the practitioner's medical education. No author producing for publication a paper containing quantitative data which must be evaluated, should consider his work of preparation complete until he has consulted a manual of this type.

THE CARE OF YOUNG CHILDREN

The Care of Children From One to Five. By Dr. John Gibbens, M.B., M.R.C.P. (Pp. 204 with 7 plates and 3 text-figures. 5s. 4th edition.) London: J. & A. Churchill Ltd. 1950.

Contents: 1. Growth and Development. 2. The Feeding of Young Children. 3. Feeding Errors and Difficulties. 4. Clothes. 5. Fresh Air and Sunshine. 6. Sleep and Rest. 7. Good Posture. 8. Play. 9. Books and Music. 10. Holidays, Treats and Picnics. 11. Speech. 12. The Care of the Eyes and Teeth. 13. The Control of Bowel and Bladder. 14. Discipline and Character Training. 15. Weaning the Child from Dependence to Independence. 16. Problems of Management. 17. The Problem of Sex. 18. Keeping well. 19. The Prevention of Accidents. 20. First Aid. 21. The Sick Child. 22. Common Diseases of Childhood. Table of Infectious Diseases. Appendices. Index.

First published in 1936, this useful book has continued to be popular with mothers and nurses. Although perhaps not

as well known as its companion volume *The Care of Young Babies*, it nevertheless serves as useful a purpose for those interested in the care of the older child.

In these pages the intelligent parent will find the answer to most of the everyday problems with which she has to cope. General management, the common childhood ailments and the common difficulties in feeding habits are all discussed, while ample but not undue space is devoted to the question of guiding the child's emotions and recognizing his psychological problems.

The author has thoroughly revised this edition and a considerable amount of pruning has been done. A new chapter has been added dealing with feeding errors and difficulties. An extremely useful chapter is the one entitled *First Aid* and also another on *The Prevention of Accidents*. For these two chapters alone it is a worth-while book for any mother or nursery school teacher to keep on her bookshelf.

CORRESPONDENCE

SO-CALLED ANAESTHETIC DEATHS

To the Editor: On behalf of my Executive, I wish to thank you for your leader on the subject of *So-called Anaesthetic Deaths* in the *Journal* of 12 August.

We wish to associate ourselves fully with the opinions contained in this leader, and feel that the time has now come to distinguish between deaths during anaesthesia and deaths due to anaesthesia.

Anaesthetists are often called upon to administer anaesthetics to patients *in extremis*, and may then be held responsible if a patient does not survive the operative procedure. This, it is felt, may operate detrimentally in assessing the advisability of administering anaesthetics to critically ill patients.

Whilst agreeing with you that at all inquests of this nature there should be an assessor, we would like to suggest that this assessor is a clinician, cognisant with anaesthetic routines and the problems of anaesthesia.

Hilde Ginsberg,
Honorary Secretary,
South African Society of Anaesthetists.

155 Highland Road,
Kensington,
Johannesburg.
11 September 1950.

EYE DISEASES IN RURAL AREAS

To the Editor: Among other ideas in circulation is one that in South Africa prevention and treatment of eye disease in rural areas can be tackled by means of a mobile unit. Such a unit has its uses and would certainly be more effective than an eye survey, but surely the expense associated with one or more such units and the impracticability of having a medical team in circulation like a circus, is ridiculous even in a semi-civilized country like ours.

Surely there is only one answer to the problem, viz. the distribution of a number of ophthalmologists on a regional basis, centred on small hospital towns (e.g. Umtata) subsidized by Government, Provincial and local authorities, with the right of private practice. They can co-operate with the medical profession in their areas, in a visiting capacity.

I invite anyone who can offer any better suggestion to write to this *Journal* in his or her name accordingly.

African Life Buildings,
85 St. George's Street,
Cape Town.
27 September 1950.

K. Cunningham